

PHP7

GENERIC-NAME PRESCRIPTION AND PERCEIVED QUALITY IN THE DEMAND FOR PHARMACEUTICALS IN ARGENTINA
Maceira DA, Kurtzbart R

Center for the Study of the State and Society, Buenos Aires, Argentina

OBJECTIVES: Pharmaceutical markets are examples of imperfect competition, based on product differentiation associated to perceive quality under a patent scheme. In Argentina, the 25649 law in 2002 defined the “duty to prescribe medicines by the generic name of their active principle”, changing the prior normative that allow brand names in prescriptions. The aim of the initiative was to provide the opportunity for substitution based on prices of products therapeutically equivalent, triggering price reductions and higher access to pharmaceuticals. Considering pharmaceutical markets as an array of sub-markets with non-homogeneous characteristics, this paper focuses on the analysis of two therapeutic classes: hypolipemians and calcium blockers. The objective is to measure the impact of the normative on prices, by using a data set of monthly sales by firm and by brand for the period July 1999–June 2004. **METHODS:** By using a discrete choice model of product differentiation, the econometric implementation shows a panel data analysis where each firm’s market share is explained by price and non-price characteristics, plus a dummy variable that account for normative switch, corrected by macroeconomic variables (exchange rates and economic activity fluctuations). Among non-market characteristics, the estimations consider age of the product as a proxy or reputation builder, manufacturer position in the local market, and nature of the capital (local or multinational firm). **RESULTS:** Results show that product age is significant and positive explanation for market share in both classes studied, while foreign capital and industry leadership have the expected sign just for one of the markets considered. Additionally, price is negative and significant at 99%. **CONCLUSION:** However, price sensitivity to the price increased only about 0.9% and 0.3% for each market because of the normative change, which shows perceived quality as the main explanation for demand, and rejecting the hypothesis of truncated demand function based on loyalty.

PHP8

RACIAL/ETHNIC DISPARITIES IN PRESCRIPTION DRUG UTILIZATION AND OUT-OF-POCKET COSTS**Bhandari A**

University of Maryland, School of Pharmacy, Baltimore, MD, USA

OBJECTIVES: There is very limited existing research on national-level racial/ethnic disparities in overall prescription drug utilization and out-of-pocket prescription drug (OOP PD) expenditures in working-age adults. This analysis used the 2002 Medical Expenditure Panel Survey (MEPS) to study pharmaceutical use and OOP PD expenditure differences across racial/ethnic groups, in a nationally representative population of Asian, Black, Hispanic and White adults age 18–64. **METHODS:** The predisposing, enabling, and need framework of the Andersen Behavioral Model of Health Services Utilization was used to guide hypotheses and variable selection. MEPS is a national survey of health care use, expenditures, sources of payment, and insurance coverage. A negative binomial regression model was used to analyze the number of annual prescriptions and a two-part model was used to model annual OOP PD expenditures. These models adjusted for various demographic, health status, income and insurance coverage variables. **RESULTS:** In unadjusted analyses, Whites filled an average of 10.1 medicines in 2002; this was significantly greater than drug use for Hispanics (4.72), Blacks (8.55) and Asians (4.1), p -value < 0.05 for all com-

parisons. After adjusting for predisposing, enabling and need factors, statistically significant differences in levels of medication use across racial/ethnic groups remained: compared to Whites, Asians used 47.8%, Blacks 26.2% and Hispanics 39.1%, fewer prescription drugs per year. In unadjusted analyses, Whites had OOP costs of \$218, compared to \$110, \$163, and \$75 for Hispanics, Blacks, and Asians, respectively. After adjustment, among subjects with any drug expenditures, these racial/ethnic groups had 38%, 30% and 56% lower expenditures compared to Whites, respectively. **CONCLUSION:** This study found significant disparities in pharmaceutical use across racial/ethnic groups, even after controlling factors such as income, insurance coverage and health status. Pharmaceutical therapy is critical to health care and lower utilization among minorities may explain why these groups suffer disproportionately from the effects of chronic diseases.

PHP9

THE IMPACT OF MAIL ORDER PHARMACY IN DRUG UTILIZATION AND REIMBURSEMENT IN A LARGE RETIREMENT SYSTEM**Seoane-Vazquez E, Rodriguez-Monguio R, Visaria J**

Ohio State University, Columbus, OH, USA

OBJECTIVES: The objective of this study was to compare drug utilization and drug net reimbursement for a retiree patient population using mail order pharmacy services with the results of a model simulating the effect of community pharmacy services for the same population. **METHODS:** The data source was a large public employees’ retirement system pharmacy claims data for the period January 2000–September 2005. The unit of analysis was the course of drug therapy (CDT), representing the combination of unique patient ID, and unique. A retrospective cohort study was comparing utilization and reimbursement patterns in community vs. mail order pharmacy. A simulation model was employed to assess drug utilization and reimbursement in community pharmacy using mail order pharmacy claim data. Drug claims were aggregated to obtain a set of courses of drug therapy (CDTs) representing unique patient IDs and unique drug name, formulation, and strength. The model assumed that CDT in community pharmacy would have utilization patterns similar to those found in mail order pharmacy. **RESULTS:** A total of 796,859 CDTs for 138,654 patients were included in the study. Patients had an average of 6.7 CDTs, with 11.4 claims per CDT and an average of 2.5 years in therapy. The study found high drug therapy discontinuation ratios, with 78.1% of all CDTs discontinued during the study period. The use of mail order was estimated to result in an increase of 3.4% in drug utilization in comparison with community pharmacy. The effect of mail order pharmacy on utilization varied by drug and by therapeutic class. **CONCLUSION:** Mail order pharmacy increases drug utilization. Pharmacy benefit managers should implement programs to identify and manage patients, diseases and drug therapies with high therapy discontinuation. Decision makers should carefully evaluate the utilization and cost effects that result from the implementation of mail order pharmacy programs.

PHP10

ASSESSING PAYER AND EMPLOYER PERSPECTIVES RELATED TO VALUE IN HEALTH CARE**Bresnahan BY¹, Carlson R¹, Garrison LP¹, Carpenter G², Neumann PJ³, Sullivan SD¹**

¹University of Washington, Seattle, WA, USA, ²WorkWell Systems, Inc, Aliso Viejo, CA, USA, ³Tufts-New England Medical Center, Boston, MA, USA

OBJECTIVES: To conduct a study to assess value perceptions and the evidence needs for key stakeholders of medical product manufacturers, including payers and employers. This study was a structured, qualitative assessment of influential U.S. health plans and companies. **METHODS:** Telephone survey interviews were used to collect data from fifteen private U.S. payer representatives and payer-related experts. Phone and in-person interviews were conducted with twenty-six U.S. employer representatives. Working behavioral assumptions were constructed for the payer and employer groups, and stakeholder-specific discussion guides were used to facilitate the survey interviews. **RESULTS:** The top payer findings suggest that health plans are most interested in clinical safety, efficacy, and effectiveness evidence. Payers' demands are increasing for more clinical utility and clinical performance studies providing comparative information for medical products. Cost and cost-effectiveness were identified as important but secondary considerations for coverage and reimbursement decisions. The employers surveyed exhibited substantial diversity in their approach to providing health care benefits for employees. The majority of employers and payers reported that consumer-directed health care (CDHC) plans are increasing in scope and will play a larger role moving forward. Most reported that the effects of CDHC on costs and long-term health outcomes are unclear. Recent trends associated with health care costs increasing faster than inflation contribute to employers' difficulty with defining "value in health care" and to their challenges associated with evaluating return on investment for health care expenditures. **CONCLUSION:** U.S. employers and payers are struggling with clearly defining the concept of medical product value. Payers rely on phase III randomized controlled trials as their primary evidence source for covering medical products, yet request additional post-marketing comparative studies. Employers are largely engaged in cost-shifting to employees and are trying to select younger and healthier workforces to reduce their health care expenditures.

PHP11

THE VOLUNTARY INCENTIVE STRUCTURE OF PEDIATRIC EXCLUSIVITY AND ITS IMPACTS ON PHARMACEUTICAL INDUSTRY BEHAVIOR AND GENERIC DRUG ENTRIES
Rhee J

UCLA, Los Angeles, CA, USA

OBJECTIVES: The FDA Modernization Act of 1997 created a six-month of market exclusivity extension in exchange for pharmaceutical companies' pediatric studies for the drugs of potential benefits to the pediatric population. This study examines how the voluntary incentive structure of the exclusivity has impacted on the pharmaceutical industry's efforts to obtain the exclusivity and how the rule has been used to delay generic entries for the exclusivity period. **METHODS:** By using 63 drugs whose patent expired between 1999 and 2003, obtained from the FDA, several descriptive analyses were performed. The percentage of drugs with pediatric exclusivity was described by several important factors, especially focusing on main use of the drugs. Next, all the drugs were divided into two groups—drugs with exclusivity vs. no exclusivity—and then generic competition degree was presented by each group for two years following the initial patent expiration of each drug. **RESULTS:** A bigger firm was good at filing the exclusivity that needs additional clinical study ($p < 0.05$). The competition level in each drug's therapeutic class was positively associated with having the exclusivity. The drugs with exclusivities were more likely to treat chronic conditions that include many blockbuster drugs. The firms have applied for pediatric extension over the drugs with larger market

size ($p < 0.01$). For pediatric exclusivity group, there were no generic competitors until six months and then there was a dramatic increase of generic entries after the exclusivity expired whereas no-pediatric group didn't show notable increasing trend during the observation period. **CONCLUSION:** The market size of a drug was the most important factor to acquire the pediatric exclusivity that has been a tool for an originator firm to delay generic competition. It implies the incentive structure based on willingness of industry has not always achieved the primary goal of "safety of children".

PHP12

DIFFERENCES IN CHRONIC DISEASE CARE OF PRE-MEDICARE INDIVIDUALS BETWEEN METROPOLITAN AND NON-METROPOLITAN SETTINGS

Raofi S

Centers for Disease Control and Prevention, Hyattsville, MD, USA

OBJECTIVES: Differences between metropolitan and non-metropolitan setting in the management of chronic conditions in patients 55 to 64 years of age can result in higher morbidity rates in non-metropolitan areas. We will look at the association between the geographic setting and indicators of care management for visits in this population. **METHODS:** Data from the National Ambulatory Medical Care and National Hospital Ambulatory Medical Care (outpatient department) surveys were combined for years 2001 to 2004. NAMCS and NHAMCS collect visit data from medical records of randomly selected physician offices, hospital outpatient departments, and hospital emergency departments during randomly selected time periods through the year. A metropolitan area is an urban area with a core population of at least 50,000. Visit data were weighted by the inverse of selection probability and used to provide annual average estimates. Visits having diagnoses codes for hypertension, diabetes, COPD, heart disease, stroke, and cancer were selected based on the ICD-9-CM codes. Number of chronic diseases, medications mentioned, therapeutic and preventive services performed, and diagnostic procedures ordered per visit were compared between metropolitan and non-metropolitan settings. SUDAAN software was used to develop a Poisson regression model to perform the comparisons. Source of payment, gender, and race for patients were included in the model as covariates. The effect of the number of previous visits on the outcomes will be examined in future. **RESULTS:** Although rural visits had a higher number of chronic conditions (1.14 vs. 1.11, $p < 0.05$), they had a smaller number of therapeutic and preventive services performed per visit (1.22 vs. 2.73, $p < 0.01$) and had a lower number of diagnostic and screening procedures ordered per visit (2.61 vs. 3.04, $p < 0.05$). **CONCLUSION:** The differences in care management in the years preceding Medicare eligibility could have implications for utilization of services once this population enrolls in Medicare.

PHP13

THE TRENDS IN PRESCRIBING OF HERBAL MEDICINES IN AMBULATORY SETTINGS IN THE UNITED STATES 1993–2004

Pathak P, Martin BC

University of Arkansas for Medical Sciences, Little Rock, AR, USA

OBJECTIVES: The use and awareness of herbal medicines has been on the rise. Although most of these products are over the counter (OTC), it is less known how often they are recommended during office-based physician visits. Purpose: The objective of this study was to investigate the trends in prescribing of herbal medicines in the ambulatory medical setting in the U.S. **METHODS:** This study was a retrospective analysis of the National Ambulatory Medical Care Survey (NAMCS) and